



COPY OF PAPERS
ORIGINALLY FILED

CLAIMS:

1. A process for the preparation of doped anionic clay wherein a trivalent metal source is reacted with a divalent metal source, at least one of the metal sources being either doped boehmite, doped MgO or doped brucite, to obtain a doped anionic clay.
5
2. The process of claim 1 wherein doped boehmite is reacted with a divalent metal source.
10
3. The process of claim 1 wherein doped brucite is reacted with a trivalent metal source.
4. The process of claim 1 wherein doped MgO is reacted with a trivalent metal source.
15
5. The process of claim 2 wherein in addition to the doped boehmite another trivalent metal source is present in the reaction mixture.
- 20 6. The process of claim 3 wherein in addition to the doped brucite another divalent metal source is present in the reaction mixture.
7. The process of claim 4 wherein in addition to the doped MgO another divalent metal source is present in the reaction mixture.
25
8. The process of claim 1 wherein the trivalent metal source and the divalent metal source are reacted under hydrothermal conditions.
9. The process of claim 1 wherein the doped boehmite, the doped MgO and/or the doped brucite contain a rare earth metal compound as dopant.
30



10. The process of claim 1 wherein the doped boehmite, the doped MgO and/or the doped brucite is added in excess to obtain a composition comprising anionic clay and doped boehmite, doped MgO and/or doped brucite.
- 5
11. A process for the preparation of a doped Mg-Al solid solution and/or spinel, wherein an anionic clay obtained by the process of claim 1 is subjected to a heat-treatment at a temperature between about 300° and about 1200°C.
- 10
12. A process for the preparation of doped anionic clay, wherein the Mg-Al solid solution obtained by the process of claim 11 is rehydrated to form a doped anionic clay.
13. A doped anionic clay obtained by the process of claim 1.
- 15
14. A doped anionic clay obtained by the process of claim 12.
15. A shaped body comprising the doped anionic clay of claim 13.
- 20
16. A catalyst composition containing the doped anionic clay of claim 13.
17. A catalyst additive composition containing the doped anionic clay of claim 13.
18. A shaped body comprising the doped anionic clay of claim 14.
- 25
19. A catalyst composition containing the doped anionic clay of claim 14.
20. A catalyst additive composition containing the doped anionic clay of claim 14.